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| EXAMINER | |
|---|---|
| CHUNG, DANIEL J | |
| **ART UNIT** | **PAPER NUMBER** |
| 2672 | |

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/693,630 | SUBRAMANIAN ET AL. | |
| | Examiner | Art Unit | |
| | Daniel J Chung | 2672 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 1-67 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-67 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Drawings*

The drawings are not objected to by the Examiner.

### *Specification*

Please review the application and correct all informalities.

### *Claim Objections*

Claim 8 is objected to because of the following informalities: In claim 8, "...t least one..." should apparently read "...at least one...". Appropriate correction is required. Applicant is respectfully requested to carefully review all claims for any other informalities that require correction.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17 and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to dependent claims 17 and 60,

The phrase "...function related to hit-testing a visual...", line 3 in claims 17 and 60, is vague and ambiguous, as it is not understood as to how one determines "hit

testing" should be? Further, such limitation is not been well-described in applicant's disclosure.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-67 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. That is, the method claims are clearly software as supported by applicant's specification and they clearly read on a software implementation. Such an implementation or a computer program is never claimed. As such, the claims in question (independent claims 1,36 and 65, and all dependent claims thereof) recite functional descriptive material, that is, software per se, and as such are prima facie nonstatutory. Further, claims 1,36 and 65 are not technologically embodied, as a "computing environment" in the above claims could be a room with a computing device in it. See MPEP 2106 and *In re Prater*.

To expedite a complete examination of the instant application, the claims rejected above under 35 U.S.C. 101 (nonstatutory) are further rejected as set forth below in anticipation of applicant amending the claims to place them within the four statutory categories of invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16,18-59 and 61-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Demsey et al. (US 2004/0093604)

Regarding claim 1, Demsey et al discloses that the claimed feature of a method for arranging computer graphics data for processing into an output, comprising; receiving a function call [i.e. "managed/native code", "draw parameter call"] via an interface of a media integration layer, the function call corresponding to graphics-related data [i.e. "drawing resources"] (See Fig 1, [23],[25],[28],[79],[91]); and causing data in a scene graph data structure to be modified based on the function call [i.e. "managed/native code", "draw parameter call"]. (See Abstract, [7-8],[33])

Regarding claim 2, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking a function to initialize a new instance of a visual class [i.e. "class library"]. (See [22-23])

Regarding claim 3, Demsey et al discloses that receiving a function call via an interface corresponding to a transform [i.e. "scale"] associated with the visual. (See [21])

Regarding claim 4, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking a function to initialize a new instance of a drawing visual class [i.e. "class library"]. (See [22-23])

Regarding claim 5, Demsey et al discloses that receiving a function call via an interface to open the drawing visual instance for rendering, and in response, causing a drawing content to be returned, the drawing context providing a mechanism for rendering into the drawing visual. (See [31])

Regarding claim 6, Demsey et al discloses that receiving brush data in association with the function call, and wherein causing data in a scene graph data structure to be modified comprises invoking a brush [i.e. "brush"] function to modify a data structure in the scene graph data structure such that when a frame is rendered from the scene graph, an area will be filled with visible data corresponding to the brush data. (See Fig 2, Fig 4, [18],[56],[60])

Regarding claim 7, Demsey et al discloses that receiving brush data comprises receiving data corresponding to a solid color [i.e. "color"]. (See Fig 6, [18])

Regarding claim 8, Demsey et al discloses that receiving data corresponding to a linear gradient brush ["gradient"] and a stop collection comprising at least one stop. (See [18])

Regarding claim 9, Demsey et al discloses that brush receiving data corresponding to a radial gradient ["gradient"] brush. (See [18])

Regarding claim 10, Demsey et al discloses that receiving brush ["brush"] data comprises receiving data corresponding to an image. (See Fig 3-4, Fig 6, [18],[33])

Regarding claim 11, Demsey et al discloses that receiving a function call via an interface corresponding to an image effect [i.e. "new draw parameter"] to apply to the image. (See [23],[25],[28],[79],[91], Fig1)

Regarding claim 12, Demsey et al discloses that receiving pen data in association with the function call, and wherein causing data in a scene graph data structure to be modified comprises invoking a pen ["pen"] function that defines an outline of a shape. (See [6],[18],[34],[39],[56],[60])

Regarding claim 13, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking a geometry related function to

represent an ellipse [i.e. "circle", as ellipse is one of type of "circle" shape] in the scene graph data structure. (See [39],[45])

Regarding claim 14, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking a geometry related function to represent a rectangle ["rectangle"] in the scene graph data structure. (See [18],[33],[39],[45])

Regarding claim 15, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking a geometry related function to represent a path [i.e. "thickness of a primitive line"] in the scene graph data structure. (See [90], claim 38)

Regarding claim 16, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking a geometry related function to represent a line ["line"] in the scene graph data structure. (See [18],[90])

Regarding claim 18, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to transform [i.e. "scale"] coordinates of a visual in the scene graph data structure. (See [21])

Regarding claim 19, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to calculate a bounding box [i.e. "boundary"] of a visual in the scene graph data structure. (See [8],[32],[43-45])

Regarding claim 20, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function via a common interface to a visual object in the scene graph data structure. (See [31])

Regarding claim 21, Demsey et al discloses that invoking a visual manager to render a tree of at least one visual object to a rendering target [i.e. "hierarchical data structures"]. (See [79],[91])

Regarding claim 22, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to place a container [i.e. "boundary"] object in the scene graph data structure, the container object configured to contain at least one visual object. (See [8],[32],[43-45])

Regarding claim 23, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to place image data into the scene graph data structure. [(See [31])

Regarding claim 24, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to place an image effect [i.e. image modification] object into the scene graph data structure that is associated with the image data. (See Abstract, [7-8],[33])

Regarding claim 25, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to place data corresponding to text ["text"] into the scene graph data structure. (See [18])

Regarding claim 26, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to provide a drawing context in response to the function call. (See [31])

Regarding claim 27, Demsey et al discloses that the function call corresponds to a retained visual, and further comprising, calling back to have the drawing context of the retained visual returned to the scene graph data structure [i.e. "drawing resource can be displayed..."]. (See [31])

Regarding claim 28, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to place a three-dimensional ["resource dimension"] visual into the scene graph data structure. (See [90])

Regarding claim 29, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to map a two-dimensional surface onto the three dimensional visual [i.e. "the drawing resource dimension portion"; 708]. (See [90])

Regarding claim 30, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to place animation data [i.e. "video"] into the scene graph data structure. (See Abstract, [7-8],[33],[101])

Regarding claim 31, Demsey et al discloses that communicating timeline [i.e. "time frame"] information corresponding to the animation data to a composition engine at another layer of the media integration layer. (See [48-49],[56])

Regarding claim 32, Demsey et al discloses that the composition engine interpolates graphics data based on the timeline [i.e. "time frame"] to animate an output corresponding to an object in the scene graph data structure. (See [48-49],[56])

Regarding claim 33, Demsey et al discloses that receiving a function call via an interface comprises receiving markup [i.e. "XML"], and wherein causing data in a scene graph data structure to be modified comprises parsing the markup into a call to an interface of an object. (See [81])

Regarding claim 34, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to place an object corresponding to audio ["speaker"] and/or video ["video"] data into the scene graph data structure. (See [101])

Regarding claim 35, Demsey et al discloses that causing data in a scene graph data structure to be modified comprises invoking function to change a mutable value [i.e. "characteristic parameter information"] of an object in the scene graph data structure. (See Fig 6, [24],[33],[41-45])

Regarding claim 36, refer to the discussion for the claim 1 hereinabove, Demsey et al discloses that the claimed feature of in a computing environment, a system comprising: a scene graph data [i.e. "drawing"] structure of a layered system for containing data [i.e. "managed/native function", "draw parameter call"].that can be rendered into output that for subsequent integrated output that can be viewed [i.e. "displayed drawing resource"]; and an object model including visual objects [i.e. "objects"[ and other data that can be contained in the scene graph data structure, at least some of the objects of the object model having interfaces [i.e. "GUI", "UI"] for invoking functions to modify contents of the scene graph data structure. (See Fig 1, Fig 3, Fig 4, Abstract, [23],[25],[28],[79],[91])

Regarding claim 37, Demsey et al discloses that at least one function is invoked to place a tree of visual objects into the scene graph data structure [i.e. hierarchical data structures"]. (See [79],[91])

Regarding claim 38, Demsey et al discloses that a visual manager that when invoked renders the tree of visual objects to a rendering target [i.e. hierarchical data structures"]. (See [79],[91])

Regarding claim 39, Demsey et al discloses that the tree of visual objects is contained in a visual collection object. (See [79],[91])

Regarding claim 40, Demsey et al discloses that at least one function of an object of the object model is invoked to place the visual object into the scene graph data structure. (See [31])

Regarding claim 41, Demsey et al discloses that at least one function of an object of the object model is invoked to associate a brush ["brush"] with the visual object. (See Fig 2, Fig 4, [18],[56],[60])

Regarding claim 42, Demsey et al discloses that at least one function of an object of the object model is invoked to associate a geometry [i.e. "primitives"] with the visual object. (See Abstract, [7-8],[33])

Regarding claim 43, Demsey et al discloses that the geometry comprises at least one of a set containing an ellipse geometry [i.e. "circle"], a rectangle geometry [i.e. "rectangle"], a line geometry [i.e. "line"] and a path [i.e. "line with thickness"] geometry. (See [18],[33],[39],[45])

Regarding claim 44, Demsey et al discloses that at least one function of an object of the object model is invoked to associate a transform ["scale"] with the visual object. (See [21])

Regarding claims 45-48, Demsey et al discloses that the transform comprises a rotate/scale/translate/skew transform [i.e. "scale", where 'rotation','translation','skewing' is known object manipulation in an analogous art] for changing a perceived angle of the visual object. (See [21])

Regarding claim 49, Demsey et al discloses that comprising animation information associated with the transform, and wherein the animation information causes transformation data associated with the transform to change over time thereby animating the transformation of the visual object over time [i.e. "video"]. (See [7-8],[33],[48-49],[56],[101])

Regarding claim 50, Demsey et al discloses that at least one function of an object of the object model is invoked to associate a color ["color"] with the visual object. (See Fig 6, [18])

Regarding claim 51, Demsey et al discloses that at least one function of an object of the object model is invoked to associate gradient ["gradient"] data with the visual object. (See [18])

Regarding claim 52, Demsey et al discloses that at least one function of an object of the object model is invoked to associate a tile brush [i.e. "brush"] with the visual object. (See Fig 2, Fig 4, [18],[56],[60])

Regarding claim 53, Demsey et al discloses that at least one function of an object of the object model is invoked to associate an image with the visual object. (See [31])

Regarding claim 54, Demsey et al discloses that at least one function of an object of the object model is invoked to associate three-dimensional ["resource dimension"] data with the visual object. (See [90])

Regarding claim 55, Demsey et al discloses that at least one function of an object of the object model is invoked to associate a drawing comprising drawing primitives with the visual object. (See Abstract, [7-8],[33])

Regarding claim 56, Demsey et al discloses that at least one function of an object of the object model is invoked to associate audio and/or video media ["video"] with the visual object. (See [101])

Regarding claim 57, Demsey et al discloses that at least one function of an object of the object model is invoked to associate an image effect [i.e. image modification] with the visual object. (See Abstract, [7-8],[33])

Regarding claim 58, Demsey et al discloses that at least one function of an object of the object model is invoked to associate a pen ["pen"] with the visual object, to describe how a shape is outlined. (See Fig 2, Fig 4, [18],[56],[60])

Regarding claim 59, Demsey et al discloses that at least one function of an object of the object model is invoked to obtain a drawing context associated with the visual object. (See Abstract, [7-8],[33])

Regarding claim 61, Demsey et al discloses that at least one function of an object of the object model is invoked to associate a rectangle ["rectangle"] with the visual object. (See [18],[33],[39],[45])

Regarding claim 62, Demsey et al discloses that at least one function of an object of the object model is invoked to describe how a source rectangle should be stretched to fit a destination rectangle corresponding to the visual object [i.e. 'object manipulation']. (See [18],[33],[39],[45])

Regarding claims 63-64, Demsey et al discloses that at least one function of an object of the object model is invoked to describe how content is positioned vertically/horizontally within a container corresponding to the visual object [i.e. 'object manipulation'] (See [18],[33],[39],[45])

Regarding claim 65, refer to the discussion for the claim 1 hereinabove, Demsey et al discloses that the claimed feature of in a computing environment, a system comprising: interface [i.e. "GUI", "UI"] means for receiving function calls [i.e. "managed/native code", "draw parameter call"]; high-level composition means for integrating graphics related data and/or media related data received via the interface means into a scene graph [i.e. "drawing resources"] (See Fig 1, [23],[25],[28],[79],[91]); and rendering means for converting the scene graph into output that may be transmitted or displayed. (See Abstract, [7-8],[33])

Regarding claim 66, Demsey et al discloses the rendering means includes low-level composition means for constructing a frame for viewing based on data received from the high-level composition engine. (See Abstract, [7-8],[33])

Regarding claim 67, Demsey et al discloses that the high-level composition engine providing timeline data to the low level composition means for interpolating the appearance of visible data across at least two frames to animate the visible data over time [i.e. "video"]. (See [7-8],[33],[48-49],[56],[101])

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (703) 306-3419. He can normally be reached Monday-Thursday and alternate Fridays from 7:30am- 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael, Razavi, can be reached at (703) 305-4713.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9306 (Central fax)**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

djc
March 2, 2005

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600